

REMARKS

The Office Action of December 28, 2007 has been received and carefully reviewed. The following remarks form a full and complete response thereto. Claims 11-18 were pending. New claim 19 has been added. Claims 11-19 are now pending. No new matter has been added. Reconsideration and allowance of the pending claims are requested.

The Office Action rejected claims 11-18 under 35 U.S.C. § 103(a) as being obvious over U.S. Pat. No. 6,647,678 to Zambelli in view of U.S. Pat. No. 6,065,257 to Nacey. Applicant respectfully traverses the rejection because the combination of Zambelli and Nacey fails to disclose each limitation of the claims. Additionally, a person of skill in the art would not modify the disclosure of Zambelli with Nacey to arrive at the subject matter of the present claims.

Claim 11, upon which claims 12-18 depend, recites a beam attachment system having two posts, a beam, and at least one beam tie, where the beam is connected to the beam tie. The beam and the beam tie are mounted sliding relative to each other according to a finite sliding portion. The posts are stressed by the beam to push them apart and stressed by the beam tie to pull them together.

Zambelli discloses a device for connecting a beam to pillars having a first connection, constituting an interlocking type connection element, for connecting the two end regions of the beam to the pillars and a second connection, consisting of rigid inclined ties, for connecting two intermediate regions of the longitudinal extension of the beam to the pillars. See Abstract. In contrast to the present claims and the assertion of the Office Action, Zambelli fails to disclose either expressly or inherently that the pillars are stressed by the beam to push them apart.

The Office Action asserts that Zambelli inherently discloses this limitation; however, this contention is erroneous both as a matter of law and of fact. To establish inherency, the reference "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999). A person of ordinary skill in the art would not recognize that Zambelli discloses that the pillars are stressed by the beam to push them apart. Rather, Zambelli discloses that a bracket 12 protrudes from the side of the pillar 2 and is directed towards the beam 1 and is fixed to the end region 1a of the beam 1. Col. 3, ll. 31-33; see also

Figs. 3-5. A person of ordinary skill in the art would recognize that such an assembly could serve only to transmit vertical force to the pillar and that such an assembly could not impart any stress to push the pillars apart. Zambelli concedes as much by disclosing that the beam rests on the bracket. See, e.g., col. 3, l. 56; col 5, l. 49.

Nacey, which discloses a tendon alignment structure and method (see Abstract), does not remedy this deficiency of Zambelli. As with Zambelli, Nacey discloses a beam which is situated with a pillar such that the beam can only impart a vertical load. See Fig. 1. Nothing in Nacey discloses, teaches, or suggests posts “stressed by the beam to push them apart” as presently claimed. Therefore, for at least the reason that the combination of Zambelli and Nacey fail to disclose, teach, or suggest “the posts are stressed by the beam to push them apart,” the rejection of claim 11 and dependent claims 12-18 is improper and Applicant requests that it be withdrawn.

The rejection of claims 11-18 is improper for the additional and independent reason that the combination of Zambelli and Nacey fails to disclose “the beam and the beam tie are mounted sliding relative to each other according to a finite sliding portion” as recited. The Office Action concedes that Zambelli does not disclose this limitation. Nacey also fails to disclose this limitation. The Office Action contends that Nacey figure reference no. 10 is a beam tie. This is erroneous. Nacey figure reference no. 10 is a beam tendon, which Nacey discloses is attached only to the beam. See, e.g., Fig 1. Nacey fails to disclose that the tendon can in any manner tie the beam to a post or pier. (In fact, Nacey states that the “pier-like support” is not material to his invention. Col. 3, ll. 13-14.) Nacey further emphasizes that the tendon is attached only to the beam (and is therefore not a beam tie) by disclosing that “[p]ost-tensioning tendons 10 create compressive forces in the longitudinal direction on bridge beam 3.” Col. 3, ll. 28-30. Because Nacey and Zambelli, together and singly, fail to disclose, teach, or suggest “the beam and the beam tie are mounted sliding relative to each other according to a finite sliding portion,” the rejection of claims 11-18 is improper and Applicant requests that it be withdrawn.

The rejection of claims 11-18 is improper for the additional and independent reason that a person of ordinary skill in the art would not have combined Nacey with Zambelli in order to reach the claimed subject matter for at least two reasons. First, as discussed above, Nacey does not disclose beam ties. Second, Zambelli teaches away from the claim limitation “the beam and the beam tie are mounted sliding relative to each other.” The skilled person would not have

thought to modify the beam and each one of the beam ties of Zambelli so as to make them mounted sliding relative to each other, because this precisely contradicts (i.e., teaches away from) the tensioning function of the ties as taught by Zambelli. Moreover, a skilled person would not have sought to replace a tensioning system by a sliding mounting. Therefore, for this additional and independent reason, Applicant submits that the rejection is improper and requests that the rejection of claim 11-18 be withdrawn.

New dependent claim 19 is patentable at least by virtue of its dependency on patentable claim 11. Support for new claim 19 is found, inter alia, in original claim 1. Furthermore, claim 19 is patentable over the cited art for the additional and independent reason that Zambelli teaches that two or more beam tensioners are required for tensioning a beam. See, e.g., Fig. 1 (showing two ties (31) per beam (1)); Fig. 2 (showing four ties (31) per beam (1)); see also col. 3, l. 5. In contrast, claim 19 requires exactly one beam tie. Therefore claim 19 is allowable for this additional and independent reason.

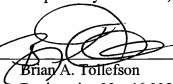
In view of the above remarks, it is believed that the claims satisfy the requirements of the patent statutes and are patentable over the cited art. Reconsideration of the instant application and early notice of allowance are requested. The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

Respectfully submitted,

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